

**Delaware
Division of
Air Quality**

2010

Air Toxics Strategic Plan

Year End Status
(January through December 2010)

Summary Report

Delaware
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2010 Air Toxics Strategic Plan

The Air Toxics Strategic Plan (ATSP) is a five-year plan of activities to be undertaken by Division of Air Quality (DAQ) and its partners to reduce the risk of adverse health effects caused by the inhalation of air toxics. The 2010 - 2014 ATSP, finalized on January 6, 2010, is organized within the following components.

- **Implement and grow an ongoing program to address the risks from exposure to air toxics**
- **Build a greater understanding of ambient air toxics environment**
- **Identify the potential harm from exposure to air toxics**
- **Gather information related to air toxics sources**
- **Identify options for reducing air toxics in the environment**
- **Implement appropriate actions to reduce the harm from exposure to air toxics**
- **Evaluate the effectiveness of the actions taken to reduce harm from exposure to air toxics**
- **Enhance DAQ Air Toxics Resources**

ACRONYMS

AFS	EPA's AIRS Facility Subsystem
ATSP	Air Toxics Strategic Plan
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DATAS	Delaware Air Toxics Assessment Study
DERA	Diesel Emissions Reduction Act
DEN	Delaware Environmental Navigator
DNREC	Delaware Department of Natural Resources and Environmental Control
EPA	U. S. Environmental Protection Agency
HAPs	Hazardous Air Pollutants, as defined in Section 112(b) of the 1990 Amendments to the Clean Air Act
MARAMA	Mid-Atlantic Regional Air Management Association
MOVES	EPA's Motor Vehicle Emission Simulator model
SIP	State Implementation Plan
TCI	Transportation and Climate Initiative
WILMAPCO	Wilmington Area Planning Council

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1. Implement appropriate actions to reduce the harm from exposure to air toxics

a. Key Accomplishments

- i. Awarded 228 grants totaling over \$3.3 million, through the Delaware Energy Office, for installation of renewable and advanced energy technologies.
- ii. Completed 6 full compliance evaluations (50% of current facilities) at major air toxics sources in accordance with the current compliance monitoring plan. The other 6 facilities are scheduled to be completed in 2011.
- iii. Complete full compliance evaluations at following area source air toxics sources in 2010.
 1. Two of 3 chrome electroplating facilities, subject to Section 6 of Regulation 1138; the other facility is scheduled to be completed in 2011.
 2. Three municipal solid waste landfills (100% of the current facilities), subject to Federal Part 63 Subpart AAAA.
 3. One lead acid battery manufacturing plant (100% of the current facilities), subject to Section 11 of Regulation 1138.
- iv. Completed 24 compliance evaluations (~34% of current facilities) at perchloroethylene dry cleaning facilities.
- v. Completed 59 consultations at auto body shops (~37% of current shops) to provide compliance assistance information on DAQ's adoption of Section 15 of Regulation 1138.
- vi. Completed 123 inspections of regulated gasoline dispensing facilities (~34% of current facilities).
- vii. Tracked 357 vapor recovery tests of regulated gasoline dispensing facilities (~100% of current facilities).
- viii. Completed 114 perceptible leak tests on gasoline delivery vessels (~19% of current vessels).
- ix. Completed weekly audits of the Division of Motor Vehicle's inspection and maintenance (I/M) program, incorporated improvements in the annual I/M reporting process, and submitted the annual I/M Report on July 31.
- x. Completed the following diesel retrofit installations:
 1. Fifteen school buses in the Cape Henlopen School District.
 2. Thirteen school buses in the Capital School District.
 3. Eleven school buses in the Providence Creek School District.
 4. Twenty-two refuse haulers and dump trucks for the City of Wilmington.
- xi. Introduced the new energy efficiency program, Green4Green, which provides grants, up to \$6000, for upgrading new homes to meet the national green standard on June 10.

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1. Implement appropriate actions to reduce the harm from exposure to air toxics

a. Key Accomplishments

- xii. Promoted energy efficiency programs introduced in late 2009 under the Delaware Sustainable Energy Utility.
 - 1. Provided three initial guidance workshops in April 2010 and an additional workshop on June 8 for submission of applications for competitive sub-grants under the “Energy Efficiency and Conservation Block Grant” program. Nearly \$10 million dollars will be available to Delaware communities through this program.
 - 2. Provided ongoing support for the recent implementation of the Appliance Rebate program.
 - 3. Provided ongoing support for the recent implementation of the Commercial Lighting Efficiency program.
- xiii. Adopted the following 4 area source air toxics standard into Regulation 1138. The requirements of Sections 14, 15, and 16 are more health protective than their similar national standard; Section 13 is as health protective as the national standard.
 - 1. Section 14, which is applicable to facilities that spray apply coatings containing heavy metal hazardous air pollutants (HAPs) to miscellaneous products and parts, in April 2010.
 - 2. Section 13, which is applicable to facilities that perform paint stripping operations using chemical strippers containing methylene chloride, in October 2010.
 - 3. Section 15, which is applicable to facilities that spray apply coatings containing heavy metal hazardous air pollutants (HAPs) to motor vehicles or mobile equipment, in October 2010.
 - 4. Section 16, which is applicable to asphalt processing and asphalt roofing products manufacturing operations, in December 2010.
- xiv. Completed SmartWay outreach programs for the public as follows:
 - 1. New Castle County’s “Platinum Picnic” on June 9 (500 attendees).
 - 2. Wilmington Blue Rock baseball game on June 30 (4500 attendees).
 - 3. Delaware Coast Day on October 3 (est. 10,000 attendees).
- xv. Completed school bus anti-idling outreach programs for the public as follows:
 - 1. Delaware State Fair on July 22 through 31.
 - 2. Delaware Coast Day on October 3.
- xvi. Completed school bus anti-idling outreach programs for the regulated community as follows:
 - 1. For the school bus drivers on March 31, May 6, and May 13
 - 2. For the Transportation Directors of the school districts on July 15.
- xvii. Completed energy efficiency/conservation educational and outreach programs for the public as follows:
 - 1. Great Green Expo on March 20.
 - 2. Delaware State Fair on July 22 through 31.
 - 3. Delaware Electric Cooperative’s Annual Meeting on August 10.
 - 4. Delaware Coast Day on October 3.

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1. Implement appropriate actions to reduce the harm from exposure to air toxics

a. Key Accomplishments

- xviii. Provided open burning guidance, outreach and educational materials to the poultry industry during March and April 2010 on eradication of chicken houses that collapsed due to heavy winter snowfalls and guidance and educational material to the public and other agencies and organizations during the year.
- xix. Provided three residential and commercial energy codes training workshops under the Home Performance program.
 - 1. Training provided on May 18 and 19.
 - 2. Training provided on May 25 and 26.
 - 3. Training provided on June 6 and 9.
- xx. Completed the DAQ's largest air toxics outreach and education program to date. This program provided nearly 200 Delaware facilities that spray apply coatings to motor vehicles and mobiles equipment with information on planned air toxics regulations, as well as, instruction on the safe and proper use of spray painting equipment and personal protection equipment through
 - 1. Three industry workshops (one in each county) in January 2010,
 - 2. Three regulatory workshops (one in each county) in February 2010,
 - 3. Several informational mailings in January 2010,
 - 4. Facility visitations, and
 - 5. A special "Auto-body" webpage of relevant information.

This air toxics outreach and education program drew upon resources across DNREC, as well as, EPA. By example,

- 1. The Small Business Ombudsman worked with EPA to design, fund, and facilitate the three industry-oriented "Collision Repair Training Workshops" in January 2010; as well as, participated in other aspects of this program, such information mailings and the three regulatory workshops in February 2010.
- 2. The Air Toxics, Greenhouse Gas Emissions & Mobile Source Group provided regulatory guidance at all six workshops, timely information through a special "auto-body" webpage, continued accessibility for questions, and tools to simplify compliance.
- 3. The Area Source Compliance Group attended all workshops and visited auto-body shops to further support this educational program by providing one-on-one guidance, where needed.
- 4. EPA Region 3 provided partial funding for the "Collision Repair Training Workshops", worked to customize the agenda for Delaware's needs, arranged for coating experts from the collision repair sector to present relevant information during three industrial workshops covering the safe and proper use of spray application equipment, and presented information on potential energy saving programs.

1. Implement appropriate actions to reduce the harm from exposure to air toxics

a. Key Accomplishments

- xxi. Provided the public and regulated community with pertinent and timely information, including compliance assistance tools, on special regulatory web pages during and following DAQ's adoption of the following 4 new area source air toxics standards into Regulation 1138.
 - 1. Section 13, which is applicable to facilities that perform paint stripping operations using chemical strippers containing methylene chloride, at <http://www.awm.delaware.gov/Info/Regs/Pages/Section13.aspx>.
 - 2. Section 14, which is applicable to facilities that spray apply coatings containing heavy metal hazardous air pollutants (HAPs) to motor vehicles or mobile equipment, at <http://www.awm.delaware.gov/Info/Regs/Pages/Section15.aspx>.
 - 3. Section 15, which is applicable to facilities that spray apply coatings containing heavy metal hazardous air pollutants (HAPs) to motor vehicles or mobile equipment, at <http://www.awm.delaware.gov/Info/Regs/Pages/Section15.aspx>.
 - 4. Section 16, which is applicable to asphalt processing and asphalt roofing products manufacturing operations, at <http://www.awm.delaware.gov/Info/Regs/Pages/1138Section16.aspx>.
- xxii. Completed the stringency determinations that demonstrate Delaware permits or regulations are at least as stringent as or more stringent than the federal area source air toxics standards. These determinations are a prerequisite for requesting delegation of Delaware permits or regulations in lieu of federal air toxics rules.
 - 1. Existing Title V permits for municipal solid waste landfills subject to Federal Subpart AAAA in June 2010.
 - 2. Section 13 of Regulation 1138 for methylene chloride paint stripping operations subject Federal Subpart HHHHHH in September 2010.
 - 3. Section 14 of Regulation 1138 for miscellaneous product and part spray coating operations subject Federal Subpart HHHHHH in April 2010.
 - 4. Section 15 of Regulation 1138 for motor vehicle and mobile equipment spray coating operations subject Federal Subpart HHHHHH in September 2010.
 - 5. Section 16 of Regulation 1138 for asphalt processing and asphalt roofing products manufacturing operations in September 2010.
- xxiii. Submitted negative declaration and requested EPA to withdraw Delaware's Hospital/Medical/Infectious Waste Incinerator (HMIWI) Plan on June 17 following the review of a recently promulgated federal amendment to the national HMIWI incinerator standard. This request was made as there were no affected HMIWI incinerators in Delaware. The EPA approved this request on November 30.
- xxiv. Identified the known and potentially affected Delaware sources that would be subject to the area source prepared feeds standard promulgated by EPA on January 5 (Federal Subpart DDDDDDD).

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1. Implement appropriate actions to reduce the harm from exposure to air toxics

b. Significant Current Activities

- i. Completed initial 2 of 4 heavy duty diesel engine replacements for off-road diesel equipment at the Port of Wilmington by October 10; awaiting installation of the final two replacements. (Est. completion – 2011)
- ii. Continued to implement the grant to install a truck stop electrification project at the Smyrna Rest Stop. (Est. completion – 3/11)
- iii. Monitored the installation of the truck stop electrification project at Delaware's I-95 Rest Stop. (Est. completion – 2/11)
- iv. Continued to implement the grant to install diesel retrofits on City of Dover municipal trucks. (Est. completion – 2/11)
- v. Prepared delegation of authority requests for submittal to EPA Region 3 to implement and enforce Delaware regulations in lieu of equivalent federal air toxics standards for the following:
 1. Implement and enforce Sections 13, 14, and 15 of Regulation 1138 in lieu of 40 CFR Part 63 Subpart HHHHHH, applicable to paint stripping and miscellaneous coating operations. (Est. completion – 2/11)
 2. Implement and enforce Section 16 of Regulation 1138 in lieu of 40 CFR Part 63 Subpart AAAAAA, applicable to asphalt processing and asphalt roofing manufacturing operations. (Est. completion – 3/11)
- vi. Continued to incorporate electric arc furnace requirements in Federal Subpart YYYYYY during the renewal of Evraz Claymont Steel's Title V permit. (Est. completion – 3/11)
- vii. Completed program development and began to implement of new energy efficiency programs under the Delaware Sustainable Energy Utility.
 1. Began to implement the new Residential Energy Efficiency program in September 2010. (Ongoing)
 2. Began to implement the Commercial Efficiency program into other new applications in September 2010. (Ongoing)
- viii. Continued to provide compliance assistance in meeting annual testing and permitting requirements to gasoline delivery vessel fleet owners. (Ongoing activity)

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1. Implement appropriate actions to reduce the harm from exposure to air toxics

c. Pending

- i. The adoption of a priority area source air toxics standard was put on hold as EPA proposed amendments to the federal standard applicable to area source gasoline dispensing facilities, making adoption inappropriate in 2010. In the interim, DAQ undertook the adoption of an area source air toxics standard applicable to asphalt processing and asphalt roofing products manufacturing operations in 2010, its adoption had been planned for 2012.
- ii. The adoption of another priority area source air toxics standard was put on hold as EPA also proposed amendments to the federal standard applicable to area source gasoline distribution operations, making adoption inappropriate in 2010. In the interim, DAQ commenced the adoption of the residual risk standard applicable to halogenated solvent cleaning operations in October 2010; its adoption had been planned for 2011.
- iii. The priority amendment of two air toxics infrastructure standards were put on hold as anticipated amendments to the federal General Provisions and Case-By-Case Control Technology Determinations were delayed, making the amendment of Section 3 and 4 of Regulation 1138 inappropriate.
- iv. The amendment of Regulation 1131 to expand the low enhanced inspection and maintenance (I/M) program statewide was put on hold pending the joint development of a regulatory path forward with Division of Motor Vehicles. In the interim, DAQ undertook the adoption of the CAL-LEV II requirements into Regulation 1140 in 2010.
- v. The incorporation of recently adopted requirements of area source air toxics standards under Section 9 (Hospital Ethylene Oxide Sterilizers) and Section 11 (Lead Acid Battery Manufacturing) of Regulation 1138 into existing operating permits was delayed due to low priority and limited available resources. (Est. completion – 6/11)
- vi. Evaluation and improvement of Delaware's open burning website and educational materials remained on hold due to lack of available funding.

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2. Implement an ongoing program to address the risks from exposure to air toxics

a. Key Accomplishments

- i. Completed and issued DAQ's 2011 Air Toxics Strategic Plan on December 28. The 2011 ATSP identifies planned activities to be undertaken by multiple Delaware agencies between 2011 and 2015 to reduce the adverse effects of air toxics in Delaware.
- ii. Completed and issued periodic reports that identified the progress toward the completion of activities being undertaken to reduce the adverse effects of air toxics.
 1. Issued the 2009 ATSP Year-End Status Report on March 9 identifying accomplishments and ongoing activities during January through December 2009.
 2. Issued the 2010 ATSP Mid-year Status Report on September 1 identifying accomplishments and ongoing activities during January through June 2010.
- iii. Completed evaluation of Area Source Compliance's air toxics assignments, expanded cross-tasking assignments between auto body, dry cleaning and asbestos programs, and provided training to better address these risk-based air toxics programs.
- iv. Participated in the multi-state collaboration, Transportation and Climate Initiative (TCI), that established the operating framework to reduce the emissions of greenhouse gases from the transportation sector. Mobile sources are now the largest source of air toxics emissions and reductions of these emissions are expected to occur under the implementation of the TCI.
- v. Solved potential compliance problems for affected Delaware facilities, especially small businesses, by developing tools that simplified and clarified the notification and reporting requirements of recently adopted section of Regulation 1138.
 1. Issued compliance assistance tools for miscellaneous coating facilities subject to Section 14 in March 2010.
 2. Issued compliance assistance tools for paint stripping facilities and collision repair coating facilities subject to Sections 13 and 15, respectively, in September 2010.
 3. Issued compliance assistance tools for asphalt roofing manufacturing facilities subject to Section 16 in November 2010.

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2. Implement an ongoing program to address the risks from exposure to air toxics

b. Significant Current Activities

- i. Continued to actively participate in the National Association of Clean Air Agency's (NACAA) air toxics, monitoring, mobile source, and outreach committee programs. (Ongoing activity)
- ii. Continued to actively participate on local, regional, and national committees, including the following, to identify energy issues, develop strategies/solutions, and implement Delaware's Energy Program.
 1. Clean State Program (Alternative Fuels). (Ongoing activity)
 2. National Association of State Energy Officials (NASEO). (Ongoing activity)
 3. Delaware Tech Applied Energy Education Advisory Committee. (Ongoing activity)
- iii. Continued to actively participate in the Transportation and Climate Initiative (TCI) to reduce the greenhouse gas emissions in the transportation sector through the development and implementation of work plans focused on the following areas:
 1. Developing clean vehicles and fuels.
 2. Promoting the development of sustainable communities.
 3. Improving the efficiency of freight transportation.
 4. Implementing communication and information technology throughout the 11-state region.
- iv. Commenced review of Engineering and Compliance's personnel for redistribution of assignments to better address risk-based air toxics programs. (Est. Completion – 3/11)

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3. Build greater understanding of ambient air toxics environment

a. Key Accomplishments

- i. Continued to monitor air toxics at the Wilmington [carbonyls, metals, and volatile HAPs] and Delaware City [volatile HAPs] monitoring stations. These air toxics monitoring data are being used to enhance our knowledge of air toxics in Delaware's environment. (Ongoing activity)
- ii. Identified and resolved a modeling anomaly in the individual exposure results generated by the emissions process module for air toxics emissions associated with airports.

b. Significant Current Activities

- i. Continued the "Community Air Toxics Study" monitoring project that utilizes a gas chromatographic/mass spectrometer to measure concentrations of multiple hazardous air pollutants (HAPs) at various sites, including several schools, in Wilmington. This data will provide insights on the spatial variation of HAP concentrations compared to the existing HAP monitoring results at Wilmington monitoring station. (Est. completion – 2012)
- ii. Continued to provide monitoring support for the University of Delaware's special project on near real time organic aerosol speciation at Wilmington monitoring station. This data will provide greater insights on the temporal variation of selected HAP concentrations compared to the existing HAP monitoring results at Wilmington monitoring station. (Ongoing activity)
- iii. Continued to provide modeling support Watershed Assessment Section to assist in their development of the mercury Total Maximum Daily Load SIP. (Est. completion – 2011)

4. Identify potential harm from exposure to air toxics

a. Key Accomplishments

- i. Used the DAQ's modeling capabilities (for the first time) to estimate the potential risk to the public based on site specific emissions during the development/issuance of operating permit.
- ii. Coordinated the reassessment of risk by Division of Public Health in May 2010 following revisions to the DATAS modeled concentrations.

b. Significant Current Activities

- i. Identified and notified EPA of a 1,1,2 trichloroethane anomaly in the 2005 National Air Toxics Assessment (NATA) pre-release results that significantly overstated the projected health risks in Delaware; the final 2005 NATA results should be released in March 2011. (Est. completion – 2Q/11)

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5. Identify options for reducing air toxics in the environment

a. Key Accomplishments

- i. Submitted 2010 Diesel Emissions Reduction Act (DERA) grant application, which was awarded in November 2010.

b. Significant Current Activities

- i. Continued to participate and worked to improve the flow of information at monthly WILMAPCO meetings for New Castle County, workgroup meeting for Kent County, and biannual combined workgroup meetings with New Castle, Kent, and Sussex Counties. (Ongoing activity)
- ii. Continued to review and make significant comments on Preliminary Land Use Service (PLUS) applications. (Ongoing activity)
- iii. Continued to maintain open communication with the Claymont Community Coalition on air toxics and other issues. (Ongoing activity)
- iv. Continued to improve the Clean Diesel Campaign educational programs through joint efforts with
 1. MARAMA and EPA Region 3 to develop of the concept and path forward for a regional outreach program. (Ongoing activity)
 2. EPA, Clean Air Council, and Delaware partners to develop a Delaware-specific outreach program and to establish the path forward. (Ongoing activity)
- v. Identified the Girl Scouts of America (GSA) as a new audience to expand DAQ's anti-idling outreach program through discussions with
 1. The Chesapeake Bay Council of GSA to incorporate of anti-idling and other DAQ air quality programs into GSA's Leadership Journey "Breathe". (Ongoing activity)
 2. Troop leaders and scouts to demonstrate how anti-idling and other DAQ air quality programs fit into GSA's Service Project requirements. (Ongoing activity)

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6. Gather information related to air toxics sources

a. Key Accomplishments

- i. Submitted the Underground Storage Tanks (UST) Semiannual Activities Report to EPA in April and October 2010.

b. Significant Current Activities

- i. Continued to develop and submit HAPs information for the 2008 National Emissions Inventory.
 - 1. Submitted point source HAPs data by June 1, as limited resources were prioritized on submittal of the 2007 SIP Modeling Inventory.
 - 2. Submitted area source and off-road mobile source HAPs data by November 1.
 - 3. Submitted on-road mobile source HAPs input file by November 1.
 - 4. Commenced review of on-road mobile source HAPs emissions data based on MOVES modeling in December 2010. (Est. completion – 2011)
- ii. Continued to identify new and previously unpermitted dry cleaners, auto-body shops, and gasoline delivery vessel owners. (Ongoing activity)
- iii. Began an audit of the frequency and duration of venting from the ships to be lightered during controlled lightering operations in February 2010; initial semiannual venting report is due in August 2010. (Est. completion – 2Q/11)

c. Pending

- i. Continued to experience problems with DEN's data entry systems that prevent inclusion of area source air toxics facilities into AFS. (Under investigation)
- ii. Emission inventory activities to track the emissions of air toxics of concern from significant sources are currently on hold pending identification of the key air toxics of concern, their overall level of risk, and their geographic sensitivity. (In 2011 ATSP)

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7. Evaluate the effectiveness of the actions taken to reduce harm from exposure to air toxics

a. Key Accomplishments

- i. Continued to monitor air toxics at the Wilmington [carbonyls, metals, and volatile HAPs] and Delaware City [volatile HAPs] monitoring stations. These air toxics monitoring data are being used to enhance our knowledge of air toxics in Delaware's environment. (Ongoing activity)
- ii. Completed an assessment of the compliance performance by school bus operators with anti-idling requirements of Regulation 1145, Excessive Idling of Heavy Duty Vehicles, at various schools throughout Delaware in June 2010 and reported the findings to the Department of Education. This assessment will be used to revise, if necessary, and to refocus the anti-idling outreach program.

b. Significant Current Activities

- i. Commenced reevaluation of the content and focus of the current anti-idling outreach program for schools with the intent to revise the school bus outreach program, as appropriate. (Ongoing activity)

c. Pending

- i. Emission inventory activities to track the emissions of air toxics of concern from significant sources are currently on hold pending identification of the key air toxics of concern, their overall level of risk, and their geographic sensitivity. (In 2011 ATSP)

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8. Air toxics resources development

a. Key Accomplishments

- i. Completed the assessment of a process that will provide for multiple-agency sharing of information for new and existing sources. Implemented this process for the for automobile body shop sector.
- ii. Improved air toxics communications between DNREC and the autobody business sector through
 1. A program that encouraged attendance and participation in a special “Collision Repair Training” program in January 2010.
 2. A program that encouraged attendance and participation in the DAQ public workshops conducted in February 2010.

b. Significant Current Activities

- i. Continued to provide DAQ personnel with information on and encourage participation in EPA’s air toxics webinar broadcasts. (Ongoing activity)

c. Pending

- i. Funds for travel for training were limited in 2010. However, there were no air toxics training opportunities requiring travel offered during the January to December 2010 period.